

Claim Amendments

Please amend Applicant's claims, without prejudice, to read as follows:

1. (Currently Amended) A printing process comprising:

a pre-printing printing stage in which digital master image data are provided which represent an original master, digital printing data for the printing colors involved in the printing are produced from the master image data and the digital printing data are transmitted to a print shop by way of a data channel for production in the print shop of printing plates by way of the digital printing data, and an edition printing stage in which edition printing is carried out by way of these printing plates in a printing machine, the printing process further comprising the steps of:

a) producing test image data representing a test image by image wise colorimetric measurement of at least one edition printing sample by way of a color measurement, said test image data being calculated from the digital printing data;

b) transmitting the test image data produced in the print shop to the pre-printing stage through a data channel;

c) evaluating the test image data in the pre-printing stage for quality monitoring;

d) transmitting a result of the quality monitoring to the print shop through a data channel;

e) using in the print shop the result of the quality monitoring transmitted from the pre-printing stage in order to control the printing process;

f) repeating steps a) to e) if color deviations between the master image data and the test image data are not in acceptable limits; and

g) releasing edition printing with the printing plates if color deviations between the master image data and the test image data are in acceptable limits.

2. (Previously Presented) Process according to claim 21 which comprises determining and then transmitting in the pre-printing stage measurement positions and nominal color values at these measurement positions through a data channel to the

print shop, and using the nominal color values in the print shop for the color control of the printing machine.

3. (Previously Presented) Process according to claim 21 which comprises using a spectrally operating color measurement system for the image wise colorimetric measurement of the edition printing sample and wherein the test image data transmitted to the pre-printing stage are spectral data which include for each measured image point remission values for several, different wave lengths.

4. (Original) Process according to claim 3, wherein the wave lengths are 16 wave lengths in the range of 400 to 700 nm with a respective spacing of 20 nm.

5. (Previously Presented) Process according to claim 21 which comprises calculating a test image on the basis of the test image data transferred to the pre-printing stage and visually displaying the test image on a screen and visually comprising the displayed test image with a reference image for the quality monitoring.

6. (Previously Presented) Process according to claim 21 which comprises including in the quality monitoring a monitoring of color deviations between the nominal color values and the corresponding color measurement values contained in the test image data.

7. (Previously Presented) Process according to claim 21 which comprises producing digital test print data from the test image data transferred to the pre-printing stage, producing a physical test print using these digital test print data, and wherein the quality monitoring includes a visual comparison of this test print with a reference image.

8. (Previously Presented) Process according to claim 7, wherein the reference image is a test print or trial print produced in the pre-printing stage using the digital printing data.

9. (Previously Presented) Process according to claim 21 which comprises transmitting the release for the edition printing to the print shop based on the quality monitoring conducted in the pre-printing stage.

10. (Previously Presented) Process according to claim 21 which comprises transmitting the results of the quality monitoring conducted in the pre-printing stage based on a desired color change or new or modified nominal color values to the print shop.

11. (Previously Presented) Process according to claim 21 which comprises transmitting the results of the quality monitoring conducted in the pre-printing stage based on a desired color change, new or modified layer thickness values or concentration values for the colors involved in the printing to the print shop.

12. (Previously Presented) Process according to claim 21 which comprises transmitting the results of the quality monitoring conducted in the pre-printing stage based on a desired color change, new or modified nominal spectra or formulations for the colors involved in the printing to the print shop.

13. (Previously Presented) Process according to claim 21 which comprises transmitting the results of the quality monitoring conducted in the pre-printing stage based on a desired color change or new or modified digital printing data to the print shop for use in the production of new printing plates in the print shop based on the digital print data, and using the printing plates for the edition printing.

14. (Previously Presented) Process according to claim 21, wherein the quality monitoring conducted in the pre-printing stage includes a protocolling of the print quality of the edition printing.

15. (Previously Presented) Process according to claim 21 which comprises using the original master or a screen display thereof as reference image for the visual comparison with the test image.

16. (Previously Presented) Process according to claim 21 which comprises using a test print or trial print printed utilizing the digital printing data and which is binding for the quality, or a screen display thereof, as reference image for the visual comparison with the test image.

17. (Previously Presented) Process according to claim 21 which comprises using a screen display of a virtual test print calculated from the digital printing data and which is binding for the quality as reference image for the visual comparison with the test image.

18. (Previously Presented) Process according to claim 21 which comprises calculating a virtual test print in the print shop from the digital printing data transmitted from the pre-printing stage and displaying the virtual test print on a screen, and using the virtual test print for the visual comparison with the test image captured in the print shop or directly with a trial print sample.

19. (Previously Presented) Process according to claim 21 which comprises image wise measuring in the pre-printing stage the original master or a test print binding for quality evaluation, using a spectral color measurement system, producing a screen display of the original master or the test print from the image data obtained thereby, and using the screen display as a reference image for the comparison with the test image.

20. (Previously Presented) Process according to claim 19, wherein the color measurement system of the print shop and the color measurement system in the pre-printing stage are equipped with a goniometric measurement geometry which allows illumination in different directions for the image capture.

21. (Currently Amended) A printing process involving two stages, a pre-printing preprinting stage and an edition printing stage which comprises in the preprinting stage producing digital original image data which represent an original master; producing digital printing data from the master image for the printing colors involved in the printing; transmitting the digital printing data to a print shop by way of a data channel; producing printing plates in the print shop using the digital printing data for use in the edition printing to be carried out in a printing machine, the printing process further comprising the steps of:

a) using for the color control of the printing machine test image data corresponding to a test image produced by an image wise colorimetric measurement of at least one edition printing sample using a spectral color measurement system, said test image data being calculated from the digital printing data;

b) transmitting the test image data produced in the print shop to the pre-printing stage through a data channel;

c) evaluating the test image data in the pre-printing stage for quality monitoring;

d) transmitting the results of the quality monitoring from the preprinting stage to the printing shop through a data channel;

e) using in the printing shop the results of the quality monitoring transmitted from the preprinting stage in order to control the printing process;;

f) repeating steps a) to e) if color deviations between the master image data and the test image data are not in acceptable limits; and

g) releasing edition printing with the printing plates if the color deviations between the master image data and the test image data are in acceptable limits.